2. This box culvert has an approximate fill height of 11.0-ft. The precast concrete box culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M259 (ASTM C 789), except that the aggregate shall conform to the requirements of Article 1003.02 of the Standard Specifications.

3. The Contractor shall determine whether culvert can be installed in two (2) or three (3) phases (Staging shown here is suggested only) and order sections' lengths as required. Joints to be sealed in accordance with Article 540.06 of the Standard Specifications.

4. For backfilling of embankment, see Article 207 thru 209 of the Standard Specifications.

5. 3-inch void between individual precast box culverts is to be filled with Class SI concrete in accordance with Article 540.06 of the Standard Specifications, no additional payment will be made for the Class SI concrete. The cost of the Class SI concrete is included with the unit price bid for "Precast Concrete Box Culvert 5-ft by 3-ft" size as indicated.

6. Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.

7. Reinforcement and Concrete Quantities are provided for information only.

TOTAL BILL OF MATERIAL

Pay Item	Unit	Total
Cast-in-Place Reinforced Concrete End Sections	Each	2
Precast Concrete Box Culvert, 5'X3'	Foot	455
Rock Excavation For Structures	Cu.Yd.	412
Removal and Disposal of Unsuitable Material for Structures	Cu.Yd.	77

BILL OF MATERIAL

Bar	No	Size	Length	Shape
<i>b</i> ₁	4	No. 5	12'-9"	
<i>b</i> 2	2	No. 4	15′-9"	
b3	4	No. 4	18'-9"	
b4	4	No. 4	21′-9"	
b ₅	28	No. 4	5′-0"	
b ₆	4	No. 4	6′-3"	
d	32	No. 4	4'-3''	
h_1	6	No. 5	25′-9"	
h ₂	8	No. 5	6′-6"	
V	8	No. 5	7'-1"	
v ₁	4	No. 5	7'-1"	
V2	4	No. 5	6′-9"	
<i>V</i> 3	4	No. 5	6′-6"	
V ₄	4	No. 5	6'-2"	
^V 5	4	No. 5	5′~11"	
^V 6	4	No. 5	5′-8"	
77	4	No. 5	5'-4"	
V8	28	No. 4	3'-1"	

DESIGNED VP

CHECKED CL

DRAWN VP

CHECKED SP

SINGH & ASSOCIATES, INC.

CONSULTING ENGINEERS

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